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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/713,849	11/15/2000	Daniel Biederman	CISCP671	4811

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EXAMINER	
MAIS, MARK A	

ART UNIT	PAPER NUMBER
2664	

DATE MAILED: 08/19/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/713,849	BIEDERMAN, DANIEL	
	Examiner	Art Unit	
	Mark A. Mais	2664	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE ____ MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on *04 January 2005*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-27* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-27* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

2. Claims 1-27 are rejected under 35 U.S.C. 102(e) as being anticipated by Lafe et al. (USP 6,449,658).

3. With regard to claim 1, Lafe et al. discloses, in a communication network, a method for forwarding data across the network comprising:

assigning a priority level to said data, ***said priority level being assigned with a delay tolerance of said data*** **[priority levels and quality of service (QOS) are inherently tied to**

delay tolerances. Moreover, priority levels, QOS, and delay tolerances encompass packet urgency, packet importance, and bandwidth requirements with respect to packet forwarding. See, for example, Yong et al., USP 5,541,919, col. 3, lines 38-47.] selecting said data for data compression responsive to said priority level **[selectively assigns 'lossless' or 'lossy' methods for compression (col. 4, lines 17-20; *see also* col. 2, lines 8-19) based on a Q (quality) level, col. 7, lines 14-22 (fig. 5). A lossless (high priority, no loss) compression method is used for financial data and a lossy (lower priority, some loss tolerated) compression method is used for audio, col. 5, lines 28-42]**; and

sending said data through said network **[Abstract]**.

4. With regard to claim 10, Lafe et al. discloses, in a digital communication network, a method for forwarding packets across the network comprising:

providing a data compression system **[figs. 2 and 3]**, having a variable compression level **[selectively assigns 'lossless' or 'lossy' methods for compression (col. 4, lines 17-20); *see also* col. 2, lines 8-19, based on a Q (quality) level, col. 7, lines 14-22 (fig. 5)]**;

inputting the packets to the data compression system while adjusting the variable compression level for individual ones of the packets responsive to priority level of the packets, ***said priority level being assigned with a delay tolerance of said data*** **[priority levels and quality of service (QOS) are inherently tied to delay tolerances. Moreover, priority levels, QOS, and delay tolerances encompass packet urgency, packet importance, and bandwidth requirements with respect to packet forwarding. See, for example, Yong et al., USP 5,541,919, col. 3, lines 38-47.] [selectively assigns 'lossless' or 'lossy' methods for**

compression (col. 4, lines 17-20; *see also* col. 2, lines 8-19) based on a Q (quality) level, col. 7, lines 14-22 (fig. 5). A lossless (high priority, no loss) compression method is used for financial data and a lossy (lower priority, some loss tolerated) compression method is used for audio, col. 5, lines 28-42. Thus, an inverse relationship exists between the compression and priority levels.]; and

sending the packets as compressed through the network **[the AC selectively performs compression prior to transmission, col. 6, lines 60-64]**.

5. With regard to claim 11, Lafe et al. discloses, in a digital communication network, apparatus for forwarding data across the network comprising:

a compression switch **[fig. 2, AC 20 and/or AS 30]** that receives the data **[intercepts packets, col. 6, lines 61-62]** and assigns a compression level to the data responsive to a priority level of the data, ***said priority level being assigned with a delay tolerance of said data*** **[priority levels and quality of service (QOS) are inherently tied to delay tolerances. Moreover, priority levels, QOS, and delay tolerances encompass packet urgency, packet importance, and bandwidth requirements with respect to packet forwarding. See, for example, Yong et al., USP 5,541,919, col. 3, lines 38-47.] [Q level is selected by the user (col. 7, lines 26-33), wherein the compression decision is automatically made by the accelerator client (AC) 20 (fig. 2) with instructions from the user, col. 6, lines 64-67]**;

a compression system that compresses the data according to the compression level **[fig. 5, compressor 54, which compresses based on Q level, col. 7, lines 6-8]**; and

an output interface that forwards the data across the network as compressed by the compression system **[fig. 2, inherent input/output interface to ISP via low-speed connection]**.

6. With regard to claim 16, Lafe discloses a computer program product **[inherent because AC 20 application that is running on a user's computer (fig. 2, col. 39-42) and stored in memory]** for forwarding data across a network comprising:

code **[inherent]** that assigns a priority level to the data, ***said priority level being assigned with a delay tolerance of said data*** **[priority levels and quality of service (QOS) are inherently tied to delay tolerances. Moreover, priority levels, QOS, and delay tolerances encompass packet urgency, packet importance, and bandwidth requirements with respect to packet forwarding. See, for example, Yong et al., USP 5,541,919, col. 3, lines 38-47.]** ;

code **[inherent]** that selects the data for data compression responsive to the priority level **[selectively assigns 'lossless' or 'lossy' methods for compression (col. 4, lines 17-20; *see also* col. 2, lines 8-19) based on a Q (quality) level, col. 7, lines 14-22 (fig. 5). A lossless (high priority, no loss) compression method is used for financial data and a lossy (lower priority, some loss tolerated) compression method is used for audio, col. 5, lines 28-42. Thus, an inverse relationship exists between the compression and priority levels.]**;

code that sends the data through the network **[the AC selectively performs compression prior to transmission, col. 6, lines 60-64]**; and

a computer-readable storage medium that stores the codes **[inherent because AC 20 application that is running on a user's computer (fig. 2, col. 39-42) and stored in memory]**.

7. With regard to claim 25, Lafe discloses a computer program product **[inherent because AC 20 application that is running on a user's computer (fig. 2, col. 39-42) and stored in memory]** for forwarding packets across a network comprising:

code **[inherent]** that provides a data compression system having a variable compression level **[selectively assigns 'lossless' or 'lossy' methods for compression (col. 4, lines 17-20); *see also* col. 2, lines 8-19, based on a Q (quality) level, col. 7, lines 14-22 (fig. 5)]**;

code **[inherent]** that inputs the packets to the data compression system while adjusting the variable compression level for individual ones of the packets responsive to priority level of the packets, ***said priority level being assigned with a delay tolerance of said data*** **[priority levels and quality of service (QOS) are inherently tied to delay tolerances. Moreover, priority levels, QOS, and delay tolerances encompass packet urgency, packet importance, and bandwidth requirements with respect to packet forwarding. See, for example, Yong et al., USP 5,541,919, col. 3, lines 38-47.] [selectively assigns 'lossless' or 'lossy' methods for compression (col. 4, lines 17-20; *see also* col. 2, lines 8-19) based on a Q (quality) level, col. 7, lines 14-22 (fig. 5). A lossless (high priority, no loss) compression method is used for financial data and a lossy (lower priority, some loss tolerated) compression method is used for audio, col. 5, lines 28-42. Thus, an inverse relationship exists between the compression and priority levels.]**;

code **[inherent]** that sends the packets as compressed through the network **[the AC selectively performs compression prior to transmission, col. 6, lines 60-64]**; and

a computer-readable storage medium that stores the codes **[inherent because AC 20 application that is running on a user's computer (fig. 2, col. 39-42) and stored in memory]**.

8. With regard to claim 26, Lafe et al. discloses, in a data communication network, apparatus for forwarding data across the network comprising:

means for assigning a priority level to the data; means for selecting the data for data compression responsive to the priority level, ***said priority level being assigned with a delay tolerance of said data*** **[priority levels and quality of service (QOS) are inherently tied to delay tolerances. Moreover, priority levels, QOS, and delay tolerances encompass packet urgency, packet importance, and bandwidth requirements with respect to packet forwarding. See, for example, Yong et al., USP 5,541,919, col. 3, lines 38-47.] [selectively assigns 'lossless' or 'lossy' methods for compression (col. 4, lines 17-20; *see also* col. 2, lines 8-19) based on a Q (quality) level, col. 7, lines 14-22 (fig. 5). A lossless (high priority, no loss) compression method is used for financial data and a lossy (lower priority, some loss tolerated) compression method is used for audio, col. 5, lines 28-42. Thus, an inverse relationship exists between the compression and priority levels.]**; and

means for sending the data through the network **[the AC selectively performs compression prior to transmission, col. 6, lines 60-64]**.

9. With regard to claim 27, Lafe et al. discloses, in a packet switched network, apparatus for forwarding packets across the network comprising:

means for compressing data using a variable compression level **[selectively assigns 'lossless' or 'lossy' methods for compression (col. 4, lines 17-20); *see also* col. 2, lines 8-19, based on a Q (quality) level, col. 7, lines 14-22 (fig. 5)]**;

means for inputting the packets to the compressing means while adjusting the variable compression level for individual ones of the packets responsive to priority level of the packets, ***said priority level being assigned with a delay tolerance of said data*** **[priority levels and quality of service (QOS) are inherently tied to delay tolerances. Moreover, priority levels, QOS, and delay tolerances encompass packet urgency, packet importance, and bandwidth requirements with respect to packet forwarding. See, for example, Yong et al., USP 5,541,919, col. 3, lines 38-47.] [selectively assigns 'lossless' or 'lossy' methods for compression (col. 4, lines 17-20; *see also* col. 2, lines 8-19) based on a Q (quality) level, col. 7, lines 14-22 (fig. 5). A lossless (high priority, no loss) compression method is used for financial data and a lossy (lower priority, some loss tolerated) compression method is used for audio, col. 5, lines 28-42. Thus, an inverse relationship exists between the compression and priority levels.]**; and

means for sending the packets as compressed through the network **[fig. 2, inherent input/output interface to ISP via low-speed connection]**.

10. With regard to claim 2, Lafe et al. discloses compressing the data only if the priority level is below a threshold **[Q level is selected by the user, col. 7, lines 26-33]**.

11. With regard to claim 3, Lafe et al. discloses

determining a compression level for the data based on said priority level **[Q level is selected by the user (col. 7, lines 26-33), wherein the compression decision is automatically**

made by the accelerator client (AC) 20 (fig. 2) with instructions from the user, col. 6, lines 64-67]; and

compressing the data according to the priority level prior to sending the data through the network [**the AC selectively performs compression prior to transmission, col. 6, lines 60-64**].

12. With regard to claims 4, 6, 11, 19, and 21, Lafe et al. discloses

determining the compression level according to an inverse relationship between the compression level and the priority level so that high priority traffic is favored in allocating bandwidth [**selectively assigns 'lossless' or 'lossy' methods for compression (col. 4, lines 17-20; *see also* col. 2, lines 8-19) based on a Q (quality) level, col. 7, lines 14-22 (fig. 5). A lossless (high priority, no loss) compression method is used for financial data and a lossy (lower priority, some loss tolerated) compression method is used for audio, col. 5, lines 28-42. Thus, an inverse relationship exists between the compression and priority levels.**].

13. With regard to claims 5, 18, and 20, Lafe et al. discloses

determining a compression level for the data based on the priority level [**Q level is selected by the user (col. 7, lines 26-33), wherein the compression decision is automatically made by the accelerator client (AC) 20 (fig. 2) with instructions from the user, col. 6, lines 64-67**] and network congestion [**interpreted by examiner as the rate/speed of transfer of data (i.e., slower speed networks takes more time to transfer data, and, therefore, benefit from compression, col. 1, lines 51-57)**]; and

compressing said data according to said priority level prior to sending said data through said network **[the AC selectively performs compression prior to transmission, col. 6, lines 60-64]**.

14. With regard to claims 7, 13, 16, and 22, Lafe et al. discloses

setting a threshold priority level for compression eligibility based on network congestion **[interpreted by examiner as the rate/speed of transfer of data (i.e., slower speed networks takes more time to transfer data, and, therefore, benefit from compression, col. 1, lines 51-57)]**; and

compressing the data only if the priority level is below the threshold **[Q level is selected by the user, col. 7, lines 26-33]**.

15. With regard to claims 8, 15, and 24, Lafe et al. discloses that the priority level corresponds to a quality of service class **[selectively assigns 'lossless' or 'lossy' methods for compression (col. 4, lines 17-20; *see also* col. 2, lines 8-19) based on a Q (quality) level, col. 7, lines 14-22 (fig. 5). A lossless (high priority, no loss) compression method is used for financial data and a lossy (lower priority, some loss tolerated) compression method is used for audio, col. 5, lines 28-42.]**.

16. With regard to claims 9, 14, and 23, Lafe et al. discloses that the data comprises a packet **[TCP/IP packets, col. 3, lines 60-63]**.

Response to Amendment

17. Applicant's arguments filed January 4, 2005 have been fully considered but they are not persuasive. Applicant's representative argues that Lafe et al. determines compression based on quality level, but does not make a priority level determination *based on a priority level associated with the delay tolerance of the data/packets* **[Amendment received January 4, 2005, page 7, paragraph 5.]** However, as explained in the rejections for the independent claims above, priority levels and quality of service (QOS) are inherently tied to delay tolerances. In fact, packet urgency, packet importance, and bandwidth requirements with respect to packet forwarding are encompassed in the terms of art known as priority levels, QOS, and delay tolerances **[See, for example, Yong et al., USP 5,541,919, col. 3, lines 38-47.]**.

18. Applicant's representative further argues that "lossy compression is a lower priority compression method" **[based on the non-final Office Action mailed October 5, 2004]** and that the Examiner must necessarily believe that "audio and video data have a low priority level." **[Amendment receieved January 4, 2005, page 8, paragraph 2]** However, the Examiner did not make the affirmative statement that audio and video packets/data were low priority. More correctly, the Examiner read Lafe et al. at col. 4, lines 17-20, col. 7, lines 8-19, and col. 7, lines 14-22 and stated that priority levels were determined for incoming data based on priority levels **[defined in Lafe et al. based financial data or audio/video data, see Id.]**. Thus, the priority is ***higher*** for financial data than for audio/video data and the inverse relationship between compression and priority level is maintained such that, in Lafe et al., financial data—which has a

higher priority level—is compressed with one method and the audio/video data/packets are compressed with another method **[lossless versus lossy, see Id.]**.

Conclusion

21. Accordingly, **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

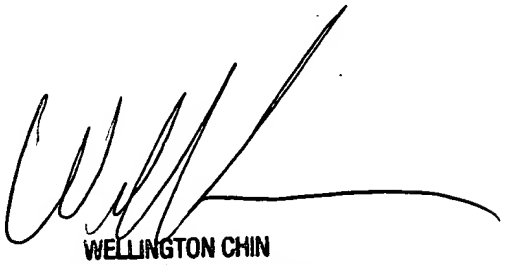
22. A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

23. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mark A. Mais whose telephone number is (571) 272-3138. The examiner can normally be reached on 6:00-4:30.

24. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wellington Chin can be reached on (571) 272-3134. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

25. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

May 23, 2005



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